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EXAMINER	
DICKERSON, CHAD S	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/660,639	YOSHIDA, MASAYUKI	
	Examiner	Art Unit	
	CHAD DICKERSON	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *20,21,24,25,28,29 and 32-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *20,21,24,25,28,29 and 32-34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *see IDS filed 10/9/2008*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection. The Amendment to the claims has necessitated a new ground(s) of rejection. However, the previously applied references of Cedar '650, Hino '788 and Yudasaka '211 are still being applied. To cure the deficiencies of the previous references, the Sakurai '350 reference is applied to the newly added claim feature.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 20, 21, 24, 25, 28, 29 and 32-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase "typeface with thin weight" is not described anywhere within the specification, nor is it disclosed in any of the drawings. Therefore, since the above phrase is not disclosed anywhere with the specification, claims 20, 24 and 28 are treated as containing new matter. The dependent claims are also rejected because of their dependency.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 20, 24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cedar '650 (6256650) in view of Hino '788 (US Pub No 2002/0036788) and Yudasaka '211 (US Pub No 2003/0202211) and Sakurai (USP 5562350).

Re claim 20: Cedar '650 discloses a document printing system (see col. 10, lines 7-9) comprising:

a first calculation unit for calculating a font size based on a scaling factor of an output area (i.e. in the system, the fullness ratio, considered analogous to the scaling factor since it is the ratio of height or width of the editable text and the text frame, is used to determine the theoretical font size in the system. With the font size being scaled based on the fullness ratio, the calculation of the theoretical font size is based on the fullness ratio. The fullness ratio can account for a text frame output area or the whole amount of the display screen, considered as the output area. The functions of the first calculation unit and other units in the system are performed by the many program modules stored in the drives (110, 113, 114 and 109) that are executed by the CPU (102); see col. 10, lines 36-67, col. 11, line 1 – col. 12, line 47);

a decision unit for deciding whether the font size calculated by said first calculation unit is smaller than a minimum font size or not (i.e. when the system calculates the theoretical font size, the system determines whether this font size is between the maximum and minimum allowed theoretical font sizes. This can apply to a scenario where the theoretical font size can be greater than the max or smaller than the minimum theoretical font size. When the theoretical font size lies outside the range from the max or min, the system adjusts the theoretical font size according to the method in column 20; see col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14);

a second calculation unit for calculating an expansion for expanding the font size to the font size (i.e. when the system determines that the theoretical font size is not between the minimum and maximum value allowed, the system either expands the font size if it is lower than the minimum or reduces the size if it is larger than the max, to a size that is halfway between the min and max theoretical values; see figs. 2-5; col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14) when said decision unit determines that the font size calculated by said first calculation unit is smaller than the minimum font size (i.e. in the system, the theoretical font size can be determined to be smaller than the minimum theoretical font size and the font size be magnified to a different size. This is shown in figure 4; see figs. 2-5; col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14); and

an adjusting unit for making adjustment to expand the output area based on the expansion calculated by said second calculation unit (i.e. in the system, the area where

the characters are output can be resized by the resize height determined by the system. The resize height is used to resize the text frame where the image data is output, considered as the output area; see col. 11, lines 1-12); and

selecting a typeface with thin weight (i.e. in the system, the user is able to use the rich text formatting approach to choose a font face such as Arial or Times New Roman that are not in a bolded manner, or thin weighted; see col. 8, ln 30-41).

However, Cedar '650 fails to teach a second calculation unit for calculating an expansion ratio for expanding the font size to the minimum font size and expansion ratio.

However, this is well known in the art as evidenced by Hino '788. Hino '788 discloses a second calculation unit for calculating an expansion ratio for expanding the font size to the minimum font size (i.e. the system of Hino is similar to the system of Cedar in the manner in which both inventions modify character data depending on the size of character data (same field of endeavor). However, shown in figure 24, the size of the characters is determined, which is considered analogous to font size. The minimum of the character sizes are also detected in the system. With the system first detecting that the character is a minimum size of 6 points and secondly detecting that the desired minimum size is 8 point characters that are needed in the document, the system calculates a magnification ratio to apply to the characters to expand the characters to the minimum size of 8 points. The magnification rate is considered to be

8/6; see fig. 24; paragraphs [0172]-[0183]) and expansion ratio (i.e. the magnification ratio is considered as the expansion ratio; paragraphs [0172]-[0183]).

Therefore, in view of Hino '788, it would have been obvious to one of ordinary skill at the time the invention was made to have the functions of a second calculation unit for calculating an expansion ratio for expanding the font size to the minimum font size and an expansion ratio in order to have a magnification ratio to enlarge the character to the detected minimum character size (as stated in Hino '788 paragraph [0176]).

However, Cedar '650 in view of Hino '788 fails to teach making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated.

However, this is well known in the art as evidenced by Yudasaka '211. Yudasaka '211 discloses making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated (i.e. like the previously applied references, the Yudasaka reference is used to enlarge characters based on character size information (same field of endeavor). However, shown in figures 13a-c are examples of an output area being expanded into a plurality of pages based on a magnification K, which is registered as a ratio of enlargement in the process of converting master image data into the size of the printing image as the output. Depending on the components SAx, SAy with the other components SBx, SBy, determines how many pages the master image data is extends onto printing image

pages. With a favorable ratio of the above components that makeup the magnification K, the master image data can expand over a large amount of the output area, which can be comprised of a plurality of pages (i.e. shown in fig. 13A), or the image data can be over a large area on one page (i.e. shown in fig. 11); see figs. 8-13; paragraphs [0066]-[0074]).

Therefore, in view of Yudasaka '211, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated incorporated in the device of Cedar '650, as modified by features of Hino '788, in order to have image data magnified by a predetermined magnification and to have printing page image data of a greater size than the size of the printing paper actually used for printing (as stated in Yudasaka '211 paragraph [0007]).

However, the combination of Cedar '650, Hino '788 and Yudasaka '211 fails to teach a selection unit for (i) selecting a specified typeface if the font size is larger than or equal to a first size, (ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size, and (iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size.

However, this is well known in the art as evidenced by Sakurai '350. Sakurai '350 discloses a selection unit for (i) selecting a specified typeface if the font size is larger than or equal to a first size (i.e. the system of Sakurai is similar to the invention of Cedar since both are involved with processing character sizes and making processing

decisions based on the result (same field of endeavor). However, as seen in figure 4 of Sakurai, the invention involves looking at the character size and comparing this size to a maximum size, considered as the first size. If the character size is larger than the maximum size, a font type is selected or set for the character in the system; see col. 3, ln 4 – col. 4, ln 32),

(ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size (i.e. in the system, the related art speaks of a need for a system to output characters that do not appear to be illegible such as bold gothic. The system is then created to create characters that can be legible that are not like bold gothic that can be considered as thin weighted font type data. As illustrated in figure 4, if the character size is greater than a minimum size, considered as the minimum size, and smaller than the maximum size, considered as the first size, the vector character pattern stored in area (20) is used as the character font for printing; see col. 1, ln 19-40 and col. 3, ln 4 – col. 4, ln 32), and

(iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size (i.e. if the character size being judged is smaller than the minimum size, which is considered as second size, the system selects, or sets, a font for the character to be printed in the system; see col. 3, ln 4 – col. 4, ln 32).

Therefore, in view of Sakurai '350, it would have been obvious to one of ordinary skill at the time the invention was made to have the features of a selection unit for (i) selecting a specified typeface if the font size is larger than or equal to a first size, (ii) selecting a typeface with thin weight in the specified font if the font size is smaller than

the first size and is larger than or equal to a second size, and (iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size, incorporated in the device of Cedar '650, as modified by the features of Hino '788 and Yudasaka '211 in order to enable character output with an optimum vector character font according to the character size (as stated in Sakurai '350 col. 1, ln 44-50).

Re claim 24: Cedar '650 discloses a document printing method (see col. 10, lines 7-9) comprising:

a first calculation step for calculating a font size based on a scaling factor of an output area (i.e. in the system, the fullness ratio, considered analogous to the scaling factor since it is the ratio of height or width of the editable text and the text frame, is used to determine the theoretical font size in the system. With the font size being scaled based on the fullness ratio, the calculation of the theoretical font size is based on the fullness ratio. The fullness ratio can account for a text frame output area or the whole amount of the display screen, considered as the output area. The functions of the first calculation unit and other units in the system are performed by the many program modules stored in the drives (110, 113, 114 and 109) that are executed by the CPU (102); see col. 10, lines 36-67, col. 11, line 1 – col. 12, line 47);

a decision step for deciding whether the font size calculated by said first calculation step is smaller than a minimum font size or not (i.e. when the system calculates the theoretical font size, the system determines whether this font size is

between the maximum and minimum allowed theoretical font sizes. This can apply to a scenario where the theoretical font size can be greater than the max or smaller than the minimum theoretical font size. When the theoretical font size lies outside the range from the max or min, the system adjusts the theoretical font size according to the method in column 20; see col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14);

a second calculation step for calculating an expansion for expanding the font size to the font size (i.e. when the system determines that the theoretical font size is not between the minimum and maximum value allowed, the system either expands the font size if it is lower than the minimum or reduces the size if it is larger than the max, to a size that is halfway between the min and max theoretical values; see figs. 2-5; col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14) when said decision step determines that the font size calculated by said first calculation step is smaller than the minimum font size (i.e. in the system, the theoretical font size can be determined to be smaller than the minimum theoretical font size and the font size be magnified to a different size. This is shown in figure 4; see figs. 2-5; col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14); and

an adjusting step for making adjustment to expand the output area based on the expansion calculated by said second calculation step (i.e. in the system, the area where the characters are output can be resized by the resize height determined by the system. The resize height is used to resize the text frame where the image data is output, considered as the output area; see col. 11, lines 1-12); and

selecting a typeface with thin weight (i.e. in the system, the user is able to use the rich text formatting approach to choose a font face such as Arial or Times New Roman that are not in a bolded manner, or thin weighted; see col. 8, ln 30-41).

However, Cedar '650 fails to teach a second calculation step for calculating an expansion ratio for expanding the font size to the minimum font size and expansion ratio.

However, this is well known in the art as evidenced by Hino '788. Hino '788 discloses a second calculation step for calculating an expansion ratio for expanding the font size to the minimum font size (i.e. the system of Hino is similar to the system of Cedar in the manner in which both inventions modify character data depending on the size of character data (same field of endeavor). However, shown in figure 24, the size of the characters is determined, which is considered analogous to font size. The minimum of the character sizes are also detected in the system. With the system first detecting that the character is a minimum size of 6 points and secondly detecting that the desired minimum size is 8 point characters that are needed in the document, the system calculates a magnification ratio to apply to the characters to expand the characters to the minimum size of 8 points. The magnification rate is considered to be 8/6; see fig. 24; paragraphs [0172]-[0183]) and expansion ratio (i.e. the magnification ratio is considered as the expansion ratio; paragraphs [0172]-[0183]).

Therefore, in view of Hino '788, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of a second calculation

step for calculating an expansion ratio for expanding the font size to the minimum font size and an expansion ratio in order to have a magnification ratio to enlarge the character to the detected minimum character size (as stated in Hino '788 paragraph [0176]).

However, Cedar '650 in view of Hino '788 fails to teach making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated.

However, this is well known in the art as evidenced by Yudasaka '211. Yudasaka '211 discloses making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated (i.e. like the previously applied references, the Yudasaka reference is used to enlarge characters based on character size information (same field of endeavor). However, shown in figures 13a-c are examples of an output area being expanded into a plurality of pages based on a magnification K, which is registered as a ratio of enlargement in the process of converting master image data into the size of the printing image as the output. Depending on the components SAx, SAy with the other components SBx, SBy, determines how many pages the master image data is extends onto printing image pages. With a favorable ratio of the above components that makeup the magnification K, the master image data can expand over a large amount of the output area, which can be comprised of a plurality of pages (i.e. shown in fig. 13A), or the image data can be over a large area on one page (i.e. shown in fig. 11); see figs. 8-13; paragraphs [0066]-[0074]).

Therefore, in view of Yudasaka '211, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated incorporated in the device of Cedar '650, as modified by features of Hino '788, in order to have image data magnified by a predetermined magnification and to have printing page image data of a greater size than the size of the printing paper actually used for printing (as stated in Yudasaka '211 paragraph [0007]).

However, the combination of Cedar '650, Hino '788 and Yudasaka '211 fails to teach a selection step for (i) selecting a specified typeface if the font size is larger than or equal to a first size, (ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size, and (iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size.

However, this is well known in the art as evidenced by Sakurai '350. Sakurai '350 discloses a selection step for (i) selecting a specified typeface if the font size is larger than or equal to a first size (i.e. the system of Sakurai is similar to the invention of Cedar since both are involved with processing character sizes and making processing decisions based on the result (same field of endeavor). However, as seen in figure 4 of Sakurai, the invention involves looking at the character size and comparing this size to a maximum size, considered as the first size. If the character size is larger than the maximum size, a font type is selected or set for the character in the system; see col. 3, ln 4 – col. 4, ln 32),

(ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size (i.e. in the system, the related art speaks of a need for a system to output characters that do not appear to be illegible such as bold gothic. The system is then created to create characters that can be legible that are not like bold gothic that can be considered as thin weighted font type data. As illustrated in figure 4, if the character size is greater than a minimum size, considered as the minimum size, and smaller than the maximum size, considered as the first size, the vector character pattern stored in area (20) is used as the character font for printing; see col. 1, ln 19-40 and col. 3, ln 4 – col. 4, ln 32), and

(iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size (i.e. if the character size being judged is smaller than the minimum size, which is considered as second size, the system selects, or sets, a font for the character to be printed in the system; see col. 3, ln 4 – col. 4, ln 32).

Therefore, in view of Sakurai '350, it would have been obvious to one of ordinary skill at the time the invention was made to have the method of a selection step for (i) selecting a specified typeface if the font size is larger than or equal to a first size, (ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size, and (iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size, incorporated in the device of Cedar '650, as modified by the features of Hino '788 and Yudasaka '211 in order to enable character output with an optimum vector character font according to the character size (as stated in Sakurai '350 col. 1, ln 44-50).

Re claim 28: Cedar '650 discloses a computer-readable medium storing thereon a computer program for instructing a computer to execute a method for document printing (see col. 10, lines 7-9) comprising:

a first calculation step for calculating a font size based on a scaling factor of an output area (i.e. in the system, the fullness ratio, considered analogous to the scaling factor since it is the ratio of height or width of the editable text and the text frame, is used to determine the theoretical font size in the system. With the font size being scaled based on the fullness ratio, the calculation of the theoretical font size is based on the fullness ratio. The fullness ratio can account for a text frame output area or the whole amount of the display screen, considered as the output area. The functions of the first calculation unit and other units in the system are performed by the many program modules stored in the drives (110, 113, 114 and 109) that are executed by the CPU (102); see col. 10, lines 36-67, col. 11, line 1 – col. 12, line 47);

a decision step for deciding whether the font size calculated by said first calculation step is smaller than a minimum font size or not (i.e. when the system calculates the theoretical font size, the system determines whether this font size is between the maximum and minimum allowed theoretical font sizes. This can apply to a scenario where the theoretical font size can be greater than the max or smaller than the minimum theoretical font size. When the theoretical font size lies outside the range from the max or min, the system adjusts the theoretical font size according to the

method in column 20; see col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14);

a second calculation step for calculating an expansion for expanding the font size to the font size (i.e. when the system determines that the theoretical font size is not between the minimum and maximum value allowed, the system either expands the font size if it is lower than the minimum or reduces the size if it is larger than the max, to a size that is halfway between the min and max theoretical values; see figs. 2-5; col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14) when said decision step determines that the font size calculated by said first calculation step is smaller than the minimum font size (i.e. in the system, the theoretical font size can be determined to be smaller than the minimum theoretical font size and the font size be magnified to a different size. This is shown in figure 4; see figs. 2-5; col. 16, line 60 – col. 17, line 22 and col. 19, line 13 – col. 20, line 14); and

an adjusting step for making adjustment to expand the output area based on the expansion calculated by said second calculation step (i.e. in the system, the area where the characters are output can be resized by the resize height determined by the system. The resize height is used to resize the text frame where the image data is output, considered as the output area; see col. 11, lines 1-12); and

selecting a typeface with thin weight (i.e. in the system, the user is able to use the rich text formatting approach to choose a font face such as Arial or Times New Roman that are not in a bolded manner, or thin weighted; see col. 8, ln 30-41).

However, Cedar '650 fails to teach a second calculation step for calculating an expansion ratio for expanding the font size to the minimum font size and expansion ratio.

However, this is well known in the art as evidenced by Hino '788. Hino '788 discloses a second calculation step for calculating an expansion ratio for expanding the font size to the minimum font size (i.e. the system of Hino is similar to the system of Cedar in the manner in which both inventions modify character data depending on the size of character data (same field of endeavor). However, shown in figure 24, the size of the characters is determined, which is considered analogous to font size. The minimum of the character sizes are also detected in the system. With the system first detecting that the character is a minimum size of 6 points and secondly detecting that the desired minimum size is 8 point characters that are needed in the document, the system calculates a magnification ratio to apply to the characters to expand the characters to the minimum size of 8 points. The magnification rate is considered to be 8/6; see fig. 24; paragraphs [0172]-[0183]) and expansion ratio (i.e. the magnification ratio is considered as the expansion ratio; paragraphs [0172]-[0183]).

Therefore, in view of Hino '788, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of a second calculation step for calculating an expansion ratio for expanding the font size to the minimum font size and an expansion ratio in order to have a magnification ratio to enlarge the character to the detected minimum character size (as stated in Hino '788 paragraph [0176]).

However, Cedar '650 in view of Hino '788 fails to teach making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated.

However, this is well known in the art as evidenced by Yudasaka '211. Yudasaka '211 discloses making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated (i.e. like the previously applied references, the Yudasaka reference is used to enlarge characters based on character size information (same field of endeavor). However, shown in figures 13a-c are examples of an output area being expanded into a plurality of pages based on a magnification K, which is registered as a ratio of enlargement in the process of converting master image data into the size of the printing image as the output. Depending on the components SAx, SAy with the other components SBx, SBy, determines how many pages the master image data is extends onto printing image pages. With a favorable ratio of the above components that makeup the magnification K, the master image data can expand over a large amount of the output area, which can be comprised of a plurality of pages (i.e. shown in fig. 13A), or the image data can be over a large area on one page (i.e. shown in fig. 11); see figs. 8-13; paragraphs [0066]-[0074]).

Therefore, in view of Yudasaka '211, it would have been obvious to one of ordinary skill at the time the invention was made to have the program step of making adjustment to expand the output area into a plurality of pages based on the expansion ratio calculated incorporated in the device of Cedar '650, as modified by features of

Hino '788, in order to have image data magnified by a predetermined magnification and to have printing page image data of a greater size than the size of the printing paper actually used for printing (as stated in Yudasaka '211 paragraph [0007]).

However, the combination of Cedar '650, Hino '788 and Yudasaka '211 fails to teach a selection step for (i) selecting a specified typeface if the font size is larger than or equal to a first size, (ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size, and (iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size.

However, this is well known in the art as evidenced by Sakurai '350. Sakurai '350 discloses a selection step for (i) selecting a specified typeface if the font size is larger than or equal to a first size (i.e. the system of Sakurai is similar to the invention of Cedar since both are involved with processing character sizes and making processing decisions based on the result (same field of endeavor). However, as seen in figure 4 of Sakurai, the invention involves looking at the character size and comparing this size to a maximum size, considered as the first size. If the character size is larger than the maximum size, a font type is selected or set for the character in the system; see col. 3, ln 4 – col. 4, ln 32),

(ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size (i.e. in the system, the related art speaks of a need for a system to output characters that do not appear to be illegible such as bold gothic. The system is then created to create characters that

can be legible that are not like bold gothic that can be considered as thin weighted font type data. As illustrated in figure 4, if the character size is greater than a minimum size, considered as the minimum size, and smaller than the maximum size, considered as the first size, the vector character pattern stored in area (20) is used as the character font for printing; see col. 1, ln 19-40 and col. 3, ln 4 – col. 4, ln 32), and

(iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size (i.e. if the character size being judged is smaller than the minimum size, which is considered as second size, the system selects, or sets, a font for the character to be printed in the system; see col. 3, ln 4 – col. 4, ln 32).

Therefore, in view of Sakurai '350, it would have been obvious to one of ordinary skill at the time the invention was made to have the method of a selection step for (i) selecting a specified typeface if the font size is larger than or equal to a first size, (ii) selecting a typeface with thin weight in the specified font if the font size is smaller than the first size and is larger than or equal to a second size, and (iii) selecting a certain font regardless of the specified font if the font size is smaller than the second size, incorporated in the device of Cedar '650, as modified by the features of Hino '788 and Yudasaka '211 in order to enable character output with an optimum vector character font according to the character size (as stated in Sakurai '350 col. 1, ln 44-50).

6. Claims 21, 22, 25, 26, 29 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cedar '650, as modified by Hino '788, Yudasaka '211 and Sakurai '350, as applied to claims 20, 24 and 28 above, and further in view of Hertzfeld '824 (USP No 6441824).

Re claim 21: The teachings of Cedar '650 in view of Hino '788, Yudasaka '211 and Sakurai '350 are disclosed above.

However, Cedar '650 in view of Hino '788 and Yudasaka '211 fails to teach the document printing system as claimed in claim 20, further comprising a changing unit for changing a font type according to the font size.

However, this is well known in the art as evidenced by Hertzfeld '824. Hertzfeld '824 discloses further comprising a changing unit for changing a font type according to the font size (i.e. in the system, the changing of the font type can occur in addition to changing the font size. Both the font type and size can be varied depending on which combination of the two attributes fits the display area available; see col. 1, line 45 – col. 2, line 2 and col. 4, lines 3-50).

Therefore, in view of Hertzfeld '824, it would have been obvious to one of ordinary skill at the time the invention was made to have a changing unit for changing a font type according to the font size in order to find a combination of the font size and type that allows information to fit within the display area available (as stated in Hertzfeld '824 col. 4, lines 43-50).

Re claim 25: The teachings of Cedar '650 in view of Hino '788, Yudasaka '211 and Sakurai '350 are disclosed above.

However, Cedar '650 in view of Hino '788 and Yudasaka '211 fails to teach the document printing method as claimed in claim 24, further comprising a changing step for changing a font type according to the font size.

However, this is well known in the art as evidenced by Hertzfeld '824. Hertzfeld '824 discloses further comprising a changing step for changing a font type according to the font size (i.e. in the system, the changing of the font type can occur in addition to changing the font size. Both the font type and size can be varied depending on which combination of the two attributes fits the display area available; see col. 1, line 45 – col. 2, line 2 and col. 4, lines 3-50).

Therefore, in view of Hertzfeld '824, it would have been obvious to one of ordinary skill at the time the invention was made to have method step of a changing step for changing a font type according to the font size in order to find a combination of the font size and type that allows information to fit within the display area available (as stated in Hertzfeld '824 col. 4, lines 43-50).

Re claim 29: The teachings of Cedar '650 in view of Hino '788, Yudasaka '211 and Sakurai '350 are disclosed above.

However, Cedar '650 in view of Hino '788 and Yudasaka '211 fails to teach the computer-readable medium as claimed in claim 28, wherein the method further comprises a changing step for changing a font type according to the font size.

However, this is well known in the art as evidenced by Hertzfeld '824. Hertzfeld '824 discloses wherein the method further comprises a changing step for changing a font type according to the font size (i.e. in the system, the changing of the font type can occur in addition to changing the font size. Both the font type and size can be varied depending on which combination of the two attributes fits the display area available; see col. 1, line 45 – col. 2, line 2 and col. 4, lines 3-50).

Therefore, in view of Hertzfeld '824, it would have been obvious to one of ordinary skill at the time the invention was made to have the method step of wherein the method further comprises a changing step for changing a font type according to the font size in order to find a combination of the font size and type that allows information to fit within the display area available (as stated in Hertzfeld '824 col. 4, lines 43-50).

Re claim 32: The teachings of Cedar '650 in view of Hino '788, Yudasaka '211 and Sakurai '350 are disclosed above.

However, Cedar '650 in view of Hino '788 and Yudasaka '211 fails to teach the document printing system as claimed in claim 21, wherein said certain font includes Gothic.

However, this is well known in the art as evidenced by Hertzfeld '824. Hertzfeld '824 discloses wherein said certain font includes Gothic (i.e. mentioned in column 4, lines 47-50, the reference states that font type can be changed to gothic).

Therefore, in view of Hertzfeld '824, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein said certain font includes Gothic in order to find a combination of the font size and type that allows information to fit within the display area available (as stated in Hertzfeld '824 col. 4, lines 43-50).

Re claim 33: The teachings of Cedar '650 in view of Hino '788, Yudasaka '211 and Sakurai '350 are disclosed above.

However, Cedar '650 in view of Hino '788 and Yudasaka '211 fails to teach the document processing method as claimed in claim 25, wherein the certain font includes Gothic.

However, this is well known in the art as evidenced by Hertzfeld '824. Hertzfeld '824 discloses wherein the certain font includes Gothic (i.e. mentioned in column 4, lines 47-50, the reference states that font type can be changed to gothic).

Therefore, in view of Hertzfeld '824, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the certain font includes Gothic in order to find a combination of the font size and type that allows information to fit within the display area available (as stated in Hertzfeld '824 col. 4, lines 43-50).

Re claim 34: The teachings of Cedar '650 in view of Hino '788, Yudasaka '211 and Sakurai '350 are disclosed above.

However, Cedar '650 in view of Hino '788 and Yudasaka '211 fails to teach the computer-readable medium as claimed in claim 29, wherein the certain font includes Gothic.

However, this is well known in the art as evidenced by Hertzfeld '824. Hertzfeld '824 discloses wherein the certain font includes Gothic (i.e. mentioned in column 4, lines 47-50, the reference states that font type can be changed to gothic).

Therefore, in view of Hertzfeld '824, it would have been obvious to one of ordinary skill at the time the invention was made to have the feature of wherein the certain font includes Gothic in order to find a combination of the font size and type that allows information to fit within the display area available (as stated in Hertzfeld '824 col. 4, lines 43-50).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Miura '831 (USP 6081831) discloses a system where text data detected is compared to a font size to see if it is above or below a minimum font size. The system

then calculates a magnification ratio to magnify the font if it is smaller than the minimum font size.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHAD DICKERSON whose telephone number is (571)270-1351. The examiner can normally be reached on Mon. thru Thur. 9:00-6:30 Fri. 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571)-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. D./
/Chad Dickerson/
Examiner, Art Unit 2625

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